

## ABSTRACT

Disclosed are systems and methods which proactively determine particular access terminals which are compatible for simultaneous communication at a high data rate and preferred embodiments provide scheduling of simultaneous communications such that data communication is optimized. Preferred embodiments of the present invention utilize a multiple element antenna array, and associated array response vectors associated with narrow antenna beam forming techniques, (adaptive array antennas) to identify compatible access terminals, such as by calculating a correlation between particular access terminals and, preferably utilizing a predetermined correlation threshold, identifying suitably uncorrelated access terminals. Using such information embodiments of the present invention may determine which particular access terminals may be controlled to transmit at a high data rate at a same time. Embodiments of the present invention are operable with respect to the forward and/or reverse links.